



**THE DATASHEET OF  
SRP2512A-R47M**





### Features

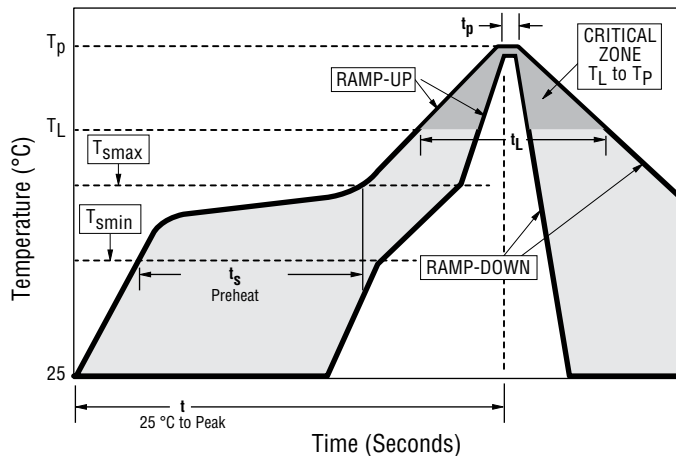
- Wirewound
- Shielded construction
- Metal alloy powder core
- High saturation current
- Low profile
- AEC-Q200 compliant
- RoHS compliant\* and halogen free\*\*

## SRP2512A Series - Shielded Power Inductors

### Electrical Specifications @ 25 °C

Bourns Part Number	Inductance @ 1 MHz / 1 V		Q (Typ.) @ 1 MHz / 1 V	SRF (MHz) Typ.	DCR (mΩ) Typ.	DCR (mΩ) Max.	I <sub>rms</sub> (A) Typ.	Isat (A) Typ.
	L (μH)	Tol. (%)						
SRP2512A-R47M	0.47	±20	39	129	21	25	4.6	5.3
SRP2512A-R68M	0.68	±20	39	104	29	35	3.7	5.0
SRP2512A-1R0M	1.0	±20	39	82	41	49	3.5	4.4
SRP2512A-1R5M	1.5	±20	39	71	64	77	2.5	3.2
SRP2512A-2R2M	2.2	±20	39	62	85	98	2.27	3.0
SRP2512A-3R3M	3.3	±20	39	50	125	150	2.0	2.1
SRP2512A-4R7M	4.7	±20	39	37	196	235	1.55	1.9

### Soldering Profile



Profile Feature	Pb Free Assembly
Average Ramp Rate (T <sub>Smax</sub> to T <sub>P</sub> )	3 °C/second max.
Preheat - Temperature Min. (T <sub>Smin</sub> ) - Temperature Max. (T <sub>Smax</sub> ) - Time (t <sub>Smin</sub> to t <sub>Smax</sub> )	150 °C 200 °C 60-180 seconds
Time Maintained Above - Temperature (T <sub>L</sub> ) - Time (t <sub>L</sub> )	217 °C 60-150 seconds
Peak Temperature (T <sub>P</sub> )	260 °C +0/-5 °C
Time within 5 °C of Actual Peak Temperature (T <sub>P</sub> )	20-40 seconds
Ramp-Down Rate	6 °C/second max.
Time 25 °C to Peak Temperature	8 minutes max.



**WARNING** Cancer and Reproductive Harm [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

\* RoHS Directive 2015/863, Mar 31, 2015 and Annex.  
 \*\* Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.  
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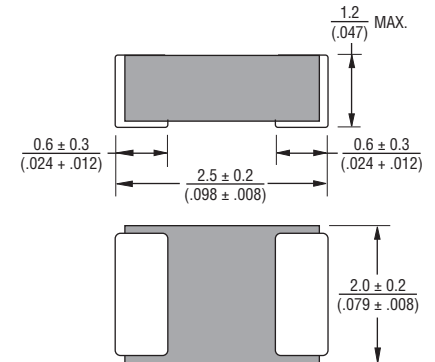
### General Specifications

Operating Temperature...-40 °C to +125 °C  
 (Temperature rise included)  
 Storage Temperature (Component)  
 .....-50 °C to +125 °C  
 Rated Current  
 ..... Inductance drops 30 % at Isat  
 Temperature Rise .....40 °C at rated I<sub>rms</sub>  
 Moisture Sensitivity Level (MSL) ..... 1  
 ESD Classification (HBM)..... N/A

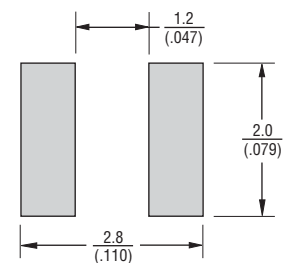
### Materials

Core.....Metal alloy powder  
 Wire .....Enameled copper  
 Terminal Finish .....Sn  
 Packaging..... 3000 pcs. per 7-inch reel

### Product Dimensions



### Recommended Layout

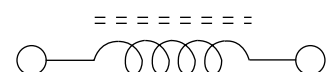


### How to Order

**SRP2512A - R47M**

Model \_\_\_\_\_  
 Value Code (see table) \_\_\_\_\_

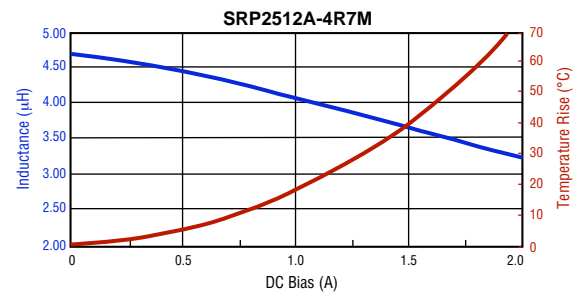
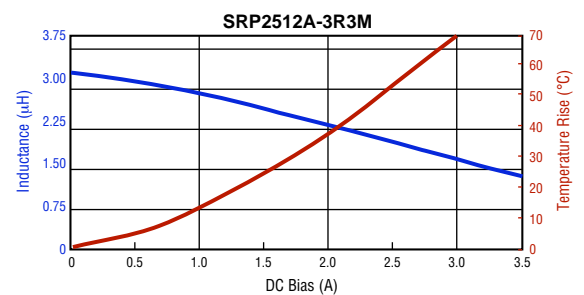
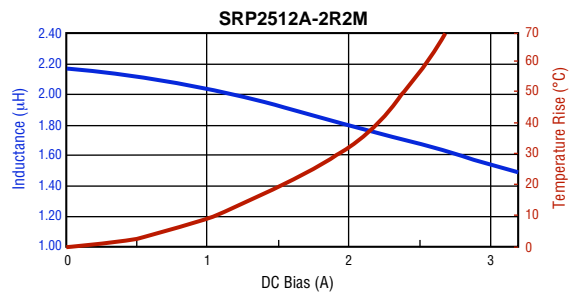
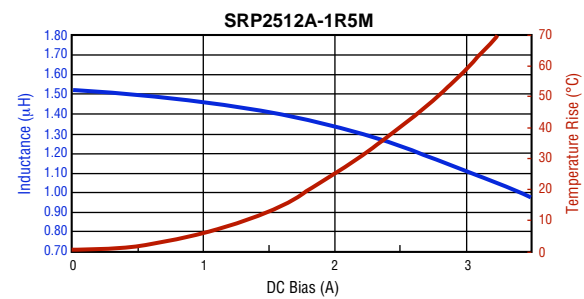
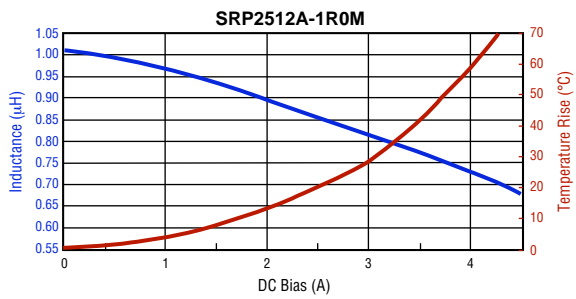
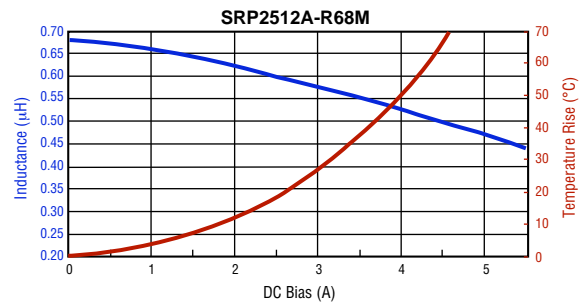
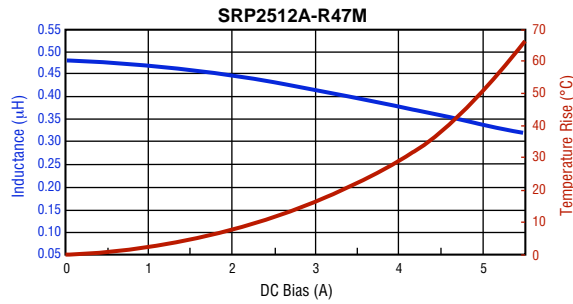
### Electrical Schematic



# SRP2512A Series - Shielded Power Inductors



## L vs. I Charts



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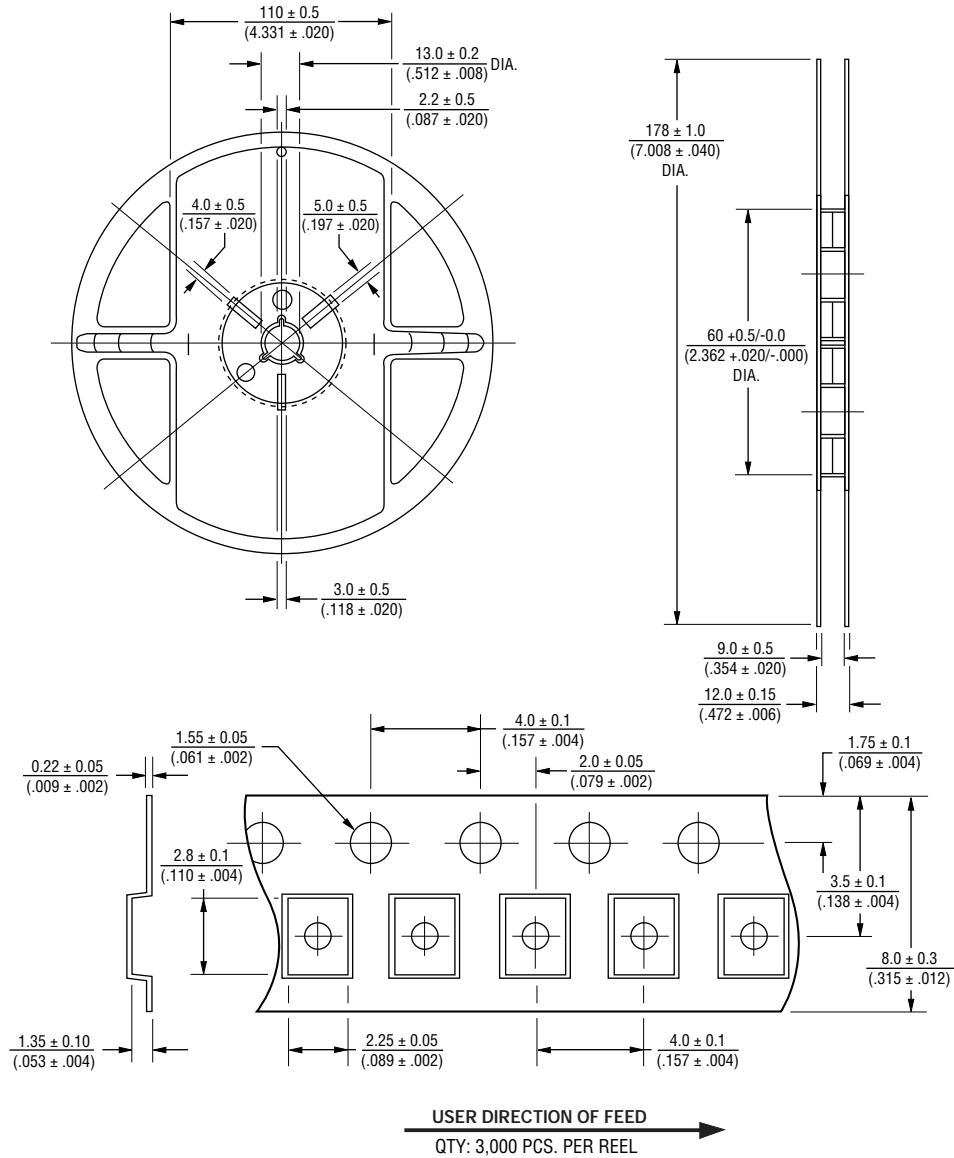
Users should verify actual device performance in their specific applications.

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# SRP2512A Series - Shielded Power Inductors



## Packaging Specifications



REV. 11/19

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